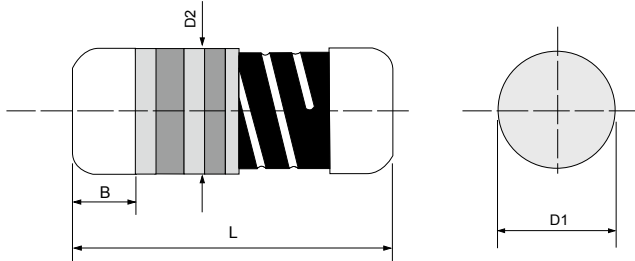


# FM Fusible MELF Resistor

Quality • Reliability  
Cost-Down via Innovation.

FM



## Specifications Per

- IEC 60115-1
- EN140401-803

## Features

- SMD enabled structure
- Excellent solderability termination
- RoHS and REACH compliant

## DIMENSIONS

Type	Body Length (L, mm)	Cap Diameter (D1, mm)	Body Diameter (D2, mm)	Soldering Spot (B, mm)	Net Weight Per 1000 pcs
FM26	5.90 ± 0.2	2.20 ± 0.1	D1+0.02/ -0.2	1.0 Min.	66 grams
FM53	5.90 ± 0.2	2.20 ± 0.1	D1+0.02/ -0.2	1.0 Min.	66 grams

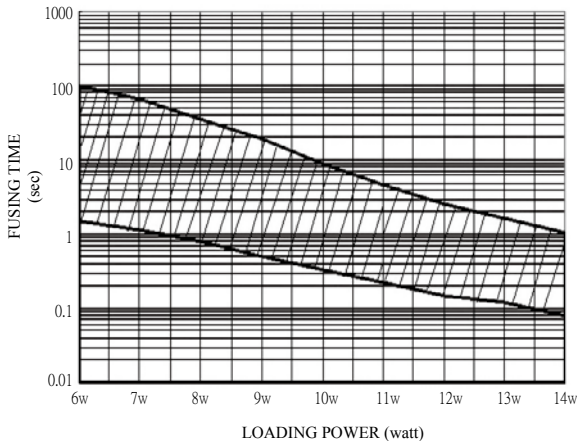
## GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Max. Working Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Value
FM26	1/3W	250V	2.2Ω	10KΩ	±5%	E-24
FM53	1/2W	300V	2.2Ω	10KΩ	±5%	E-24

Special sizes, values, and specifications not listed available on special order.

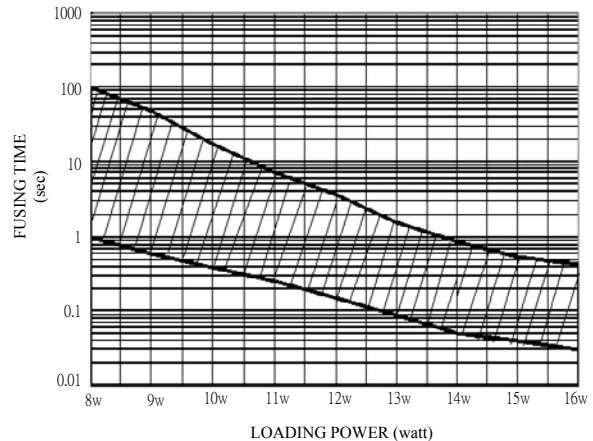
### FM26

FUSING CHARACTERISTICS  
USING CONSTANT VOLTAGE



### FM53

FUSING CHARACTERISTICS  
USING CONSTANT VOLTAGE



# FM Fusible MELF Resistor

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## ■ PART NUMBER

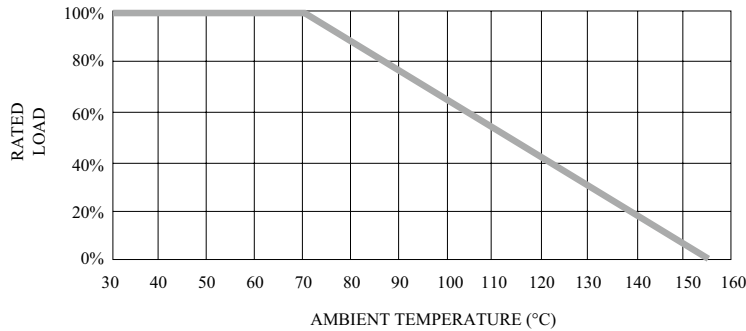
Example: FM53J10K0TKZTR2K0

<b>FM53</b>	<b>J</b>	<b>10K0</b>	<b>TKZ</b>	<b>TR2K0</b>
Type	Tolerance	Resistance	TCR	Packaging
	J (5%)	10KΩ <b>4-character code</b> containing - 3 significant digits 1 letter multiplier  <u>OHM MULTIPLIER</u> R = 1 K = 10 <sup>3</sup> M = 10 <sup>6</sup> G = 10 <sup>9</sup>	<b>3-character code</b>  TKZ = Default Product Temperature Coefficient.  Information of typical product temperature coefficient can be found in the Technical Summary section of the datasheet.*	<b>5-character code</b>  TR = Tape Reel  (pieces per reel) <u>FM26/FM53</u> 2K0 = 2,000 6K0 = 6,000** 10K = 10,000**

\* For the availabilities of non-default temperature coefficient, please check with us. Reference for TCR letter codes can be found in section (4) of Part Number Construction in the Appendices.

\*\* upon request

## ■ POWER DERATING CURVE



## ■ TECHNICAL SUMMARY

Characteristics	Limits	
Dielectric Withstanding Voltage, VAC or DC	FM26 FM53	300
Temperature Coefficient, PPM / °C*	FM26 FM53	Typically ±200
Operating Temperature Range, °C	-55 ~ +155	
Insulation Resistance, MΩ	>10 <sup>4</sup>	

\* Not applicable to all resistance values. Please check with us regarding the PPM of specific resistance value(s).

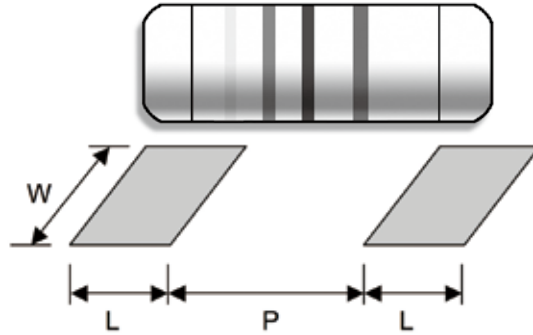
### ■ PERFORMANCE SPECIFICATIONS

Characteristics	Test Conditions	Limits
Short Time Overload	<b>IEC 60115-1 4.13</b> 2 seconds 2.5x rated voltage (not over max. overload voltage)	±5%
Load Life In Humidity	<b>IEC 60115-1 4.24</b> 56 days rated load (not over max. working voltage) at (40±2)°C and (93±3)% relative humidity	±5%
Load Life 1,000 hours	<b>IEC 60115-1 4.25.1</b> Rated load (not over max. working voltage) with 1.5 hours ON, 0.5 hours OFF, at (70±2)°C	±5%
Resistance To Soldering Heat	<b>IEC 60115-1 4.18.2</b> Dip the resistor into a solder bath measured of (260±5)°C and hold it for a 10±1 seconds	±1%
Solderability	<b>IEC 60115-1 4.17.2</b> Solder area covered after (235±3)°C/(2±0.2) seconds with flux applied	95% Min.
Vibration	<b>IEC 60115-1 4.22</b> Six hours in each parallel and axial direction with a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz.	±1%
Thermal Endurance	<b>IEC 60115-1 4.25.3</b> 1000 hours at 155°C without load	±1%
Thermal Shock	<b>IEC 60115-1 4.19</b> -55°C 30minutes, +155°C 30minutes, 5 cycles	±1%

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■ SUGGESTED PAD LAYOUT



Type	Soldering Mode	Pad Length (L, mm, Min.)	Pad Spacing (P, mm)	Pad Width (W, mm, Min.)
FM26	Reflow	2.0	3.0 ± 0.1	3.0
	Wave	2.5	3.0 ± 0.1	3.0
FM53	Reflow	2.0	3.0 ± 0.1	3.0
	Wave	2.5	3.0 ± 0.1	3.0

For better heat dissipation / lower heat resistance, increase W & L.

■ COVER TAPE PEELING SPECIFICATION

Recommended peeling force: 50±5gf

